Claims

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1. A production method of formylcyclopropanecarboxylate compound of formula (2):

$$R^{2} \qquad R^{2} \qquad (2)$$

$$CO_{2}R^{1}$$

5 wherein R^1 and R^2 are as defined below,

which comprises reacting

a cyclopropanecarboxylate compound of formula (1):

$$R^2$$
 R^2
 CO_2R^1
(1)

wherein and R¹ represent a linear, branched or cyclic alkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted aralkyl group,

R² represents a hydrogen atom or a methyl group, with at least one oxidizer selected from the group consisting of hypochlorite, N-halosuccinimide, a trichloroisocyanuric acid, and iodine,

in the presence of a nitroxy radical compound.

2. A production method according to claim 1, wherein the nitroxy radical compound is a nitroxy radical compound of formula (3):

$$\begin{array}{c|c}
R^4 & A & R^6 \\
R^5 & N & R^7
\end{array}$$
(3)

wherein R^4 , R^5 , R^6 and R^7 are the same or different and represent

- a linear, branched or cyclic lower alkyl group, or a linear or branched lower alkenyl group, an aryl group, an aralkyl group, or an acyl group, and
- 5 -CH₂COCH₂-, -COCH₂(CH₂)_n-, or -CHXCHY(CHZ)_n-, wherein n represents 0 or 1,

A represents the group represented by

- X , Y and Z are the same or different and represent a hydrogen atom, a hydroxyl group, a halogen atom, an amino group, an acylamino group, a carbamoyl group,
- a linear, branched or cyclic lower alkoxy group, a lower alkenyloxy group, an aryloxy group,

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- an aralkyloxy group, or an acyloxy group.
- 3. A production method according to claim 2, wherein nitroxy radical compound of formula (3) is 2,2,6,6-tetramethylpiperidine-1-oxyl.
 - 4. A production method according to claim 1 or 2, wherein the reaction is conducted at a pH range of 6-13.
 - 5. A production method according to claim 4, wherein the reaction is conducted at a pH range of 8-10.
- 6. A production method according to claim 4, wherein the reaction is conducted in the presence of hydrogencarbonate or hydrogenphosphate.
 - 7. A production method according to claim 5, wherein the reaction is conducted in the presence of hydrogencarbonate or hydrogenphosphate.
 - 8. A production method according to claim 1 or 2, wherein the oxidizing agent is hypochlorite.